Pacific Island Electronic Consultation and Referral (As of: 3/10/2000)

Background

For many years, Tripler Army Medical Center (TAMC) has provided secondary and tertiary care to many of the medically under served peoples of the US Associated Pacific Islands (USAPI). These include, of the Federated States of Micronesia (FSM) Yap, Kosrae, Chuuk and Pohnpei, the Republic of Palau (ROP), and the Republic of the Marshall Islands (RMI). Additional non-DoD patients are seen from American Samoa and the Commonwealth of Northern Marianas Islands (CNMI) and Guam, because of their unique teaching value. These patients are accepted for treatment either under the Pacific Island Healthcare Project- where they are seen as GME cases at no cost to the patient or the government, or they are seen on a reimbursable basis. Consultation has previously been based on personal friendships and networking, with great difficulty obtaining initial patient demographics and history as well as post treatment follow up. With the development of a web based electronic consult and referral system, TAMC can present a standardized format for consultations and referrals. This enables TAMC clinicians to review a complete request, forward it to the appropriate specialist, and make a treatment or referral determination in a store and forward format, that allows for accurate data basing, archiving and fiscal management.

Organization

- COL Donald Person, M.D.- Chief Department of Clinical Investigation (DCI) and Medical Director, Pacific Island Healthcare Program (PIHCP)
- LTC Gregg Howard- Chief, Patient Administration Division (PAD)
- Ms. Patricia Jablon- Coordinator Pacific Island Healthcare Project (PIHCP)
- Dr. Greg Dever- Director Micronesia Human Resource Development Center (MHRDC), Republic of Palau
- Mark Ching and Rosa Castro- Software and Database engineering
- Lesa Forbes- Research Assistant
- Robert K. Whitton - Akamai Project Manager

Mission Statement

To create a standardized consultation and referral network which allows TAMC clinicians to quickly triage consults and referrals remotely, allows PAD to track and database all accepted referrals, and provides remotely located clinicians greater access to TAMC tertiary care specialists. To execute a formal research proposal to determine the cost effectiveness and quality of care of using a web based consultation network.

Goals and Objectives

Goals

- Develop a network of specialists within Micronesia, Polynesia and TAMC who will act as electronic consultants for remotely located clinicians.
- Enable all remotely located clinicians to access specialists electronically in a timely manner.
- Create a database of consults and referrals for research and patient management.
- Work with IMD to finalize transfer and operational support of day to day operations of the existing program.

Objectives

- Create accurate, specific and simple to use on line forms for consultation and referral.
- Create informative and detailed web page to provide clear direction and understanding of the consultation and referral process.
- Create a network of TAMC clinicians willing to receive and respond to electronic consults.
- Enable remotely located healthcare professionals to access specialists with electronic consult.
- Develop a Research Methodology and obtain IRB Approval
- Retrieve data from CHCS to populate PIHCP software which will be used to make comparisons as identified in the Research Proposal.

Current Status

a) Primary Accomplishments:

1. Web Page draft operational. General consults and referral forms on-line. Currently gathering data.
2. Presented at the WPHNet/SPC Telehealth Conference in Noumea and met with Pacific Island Health Care Program participants, received valuable feedback by the providers. December 1998
3. Presented at the PIHOA conference in Hawaii. February 1999
4. Implemented software updates to Version 2.X, while continuing development on Version 3.0- December 1998 to July1999
5. Preliminary Acceptance by Tripler command group to institutionalize procedures for Web based consultation.
6. Jan Pryor from the MHRDC conducted training in Pohnpei and Palau. March 1999
7. Deploy system in American Samoa – June 1999
8. Train forty five clinicians, nurses, and administrators at LBJ Tropical Medical Center in American Samoa on use of capture station – June 1999
9. Setup Pacific Island Health Care Project software Version 3.0 for testing- July 1999
10. Deploy system in Ebeye – September 1999
11. Train clinicians at Kwajalein Atoll Health Care Bureau in Ebeye on use of capture station – September 1999
12. Deploy system in Kosrae – September 1999
13. Train clinicians at Kosrae State Hospital in Kosrae on use of capture station – September 1999
14. Fielded updated software Version 3.0 – December 1999
15. Deploy system in Yap – January 2000
16. Train clinicians at the Yap State Hospital – January 2000
17. Present at the Pacific Basin Medical Association and PIHOA conferences in Palau – January 2000
18. Deploy system in Saipan – January 2000
19. Train clinicians at the Commonwealth Health Center – January 2000
20. Receive initial data elements from CHCS to incorporate into the system – March 2000
21. Presenting at the American Academy of Pediatrics Uniform Services Pediatric Seminar, Bruton Lecture – March 2000

b) Project Timelines:

1. Fielded four prototype systems to four sites during Pacific Basin Medical Association (PBMA) Conference in February 1998 in Chuuk.
2. Created user name and password for web page security- March 1998
3. Develop specialist network at TAMC for consultation and triage- May 1998
4. Encrypt forms on web page- August 1998
5. Upgrade existing hardware and software-September 1998

6. American Telemedicine Association Meeting- Salt Lake City- Poster Presentation, April 1999
7. Data gathering- Current through December 1999.
8. Incorporate PAD metrics into system which will be used to do a cost benefit analysis between patients seen through Web based consultation and current standards of care- July 1999
9. Test Pacific Island Health Care Project Software Version 3.0- August to December 1999
10. Develop a Research Methodology and obtain IRB Approval, September to December 1999
11. Install systems at Kosrae and Ebeye– September 1999
12. Officially release Version 3.0 of Pacific Island Health Care Project Software December 7 1999.
13. Install systems at Yap and Saipan January/February 2000
14. 5th Annual Meeting of the Pacific Basin Medical Association - presentation, training and interviews with users – Palau – January 2000
15. Develop an interface with CHCS to be able to retrieve patient information for patients that have been seen before at Tripler. February/March 2000
16. Data Analysis and documentation of research results- January to June 2000.

Strategic Direction

Develop a network of medical specialists able to send and receive electronic consultation throughout the Western Pacific, through highly customized web based forms and databases, and the proliferation of digital imaging systems and internet access for providers.

Military Significance- This consultation model can be tailored to a military specific, existing referral pattern.

Budget/Financial Status and Information

(See attachments)

Business Associations

Corporate Partnerships

Akimeka- Software and hardware development, contracting support, Honolulu, HI
American Medical Devices- Hardware Support- Boston, MA

Government Partnerships

Office for the Advancement of TeleHealth (HRSA)
Patient Administration Division (PAD)
Department of Clinical Investigation (DCI)
Information Management Division (IMD)

Other Partnerships

Pacific Basin Medical Association (PBMA)
Micronesia Human Resource Development Center (MHRDC)
Fiji School of Medicine (FSM)
Pacific Resources for Education and Learning (PREL)

TAMC IMD

network assistance, software assistance, hardware assistance

Project Security

System Security - Equipment will be secured in their respective locations. Data will be stored on government computer systems. Web page sections will be user name and password protected. Electronic forms will be encrypted.

Summary

The current consultation and referral system for Pacific Island Healthcare providers is not efficient, effective or evenly matched among clinicians. The island nations have developed tremendous financial debt for care that might have been treated locally with specialist advice and intervention. Remote clinicians have great difficulty accessing TAMC specialists whose expertise may enable them to avoid evacuating patients with locally treatable conditions. A web based forms and database system will allow for electronic consult, bridging the challenges of time zone, date line, and busy TAMC clinician schedules.